IN THE CLAIMS

Please amend the claims as follows.

1   1. (Currently Amended) An apparatus comprising:

2   at least one processor;

3   a memory coupled to the at least one processor;

4   a network interface that couples the apparatus to a network that is coupled to a

5   plurality of other computer systems and wherein the apparatus and the plurality of other

6   computer systems form a cluster of computers that cooperate via ordered messages to

7   perform a task; and

8   a cluster communication mechanism residing in the memory and executed by the

9   at least one processor, the cluster communication mechanism including a sliding send

10 window that communicates at least one ordered message to a plurality of the other

11 computer systems without waiting for an acknowledge message from any of the plurality

12 of other computer systems before sending out the next ordered message, and wherein the

13 cluster communication mechanism enforces execution of a plurality of received messages

14 in the order the plurality of received messages were received.

1   2. (Original) The apparatus of claim 1 wherein each ordered message includes a header

2   with information that indicates whether an acknowledge message for the ordered

3   messages may be delayed and grouped with at least one subsequent acknowledge

4   message.

1   3. (Original) The apparatus of claim 2 wherein the acknowledge message acknowledges

2   from one to a plurality of ordered messages.

1   4. (Previously Presented) A networked computer system comprising:

2   a cluster of computer systems that cooperate via ordered messages to perform a

3   task wherein each computer system includes:

4   a network interface that couples each computer system via a network to

5   other computer systems in the cluster;

6   a memory; and

7   a cluster communication mechanism residing in the memory, the cluster

8   communication mechanism enforcing execution of a plurality of received

9   messages in the order the plurality of received messages were received, the cluster

10   communication mechanism including a sliding send window that communicates at

11   least one ordered message to a plurality of other computer systems without

12   waiting for an acknowledgment from any of the plurality of other computer

13   systems before sending out the next ordered message.

1   5. (Original) The networked computer system of claim 4 wherein each ordered message

2   includes a header with information that indicates whether an acknowledge message for

3   the ordered messages may be delayed and grouped with at least one subsequent

4   acknowledge message.

1   6. (Currently Amended) A computer-implemented method for processing a task in a

2   clustered computing environment, the method comprising the steps of:

3   providing a cluster communication mechanism executing on a first computer

4   system in a cluster wherein the computers in the cluster cooperate via ordered messages

5   to perform the task and wherein the cluster communications mechanism includes a sliding

6   send window that communicates at least one ordered message to a plurality of other

7   computer systems in the cluster without waiting for an acknowledgment from each

8   computer system in the cluster that received an ordered message before sending out the

9   next ordered message, and wherein the cluster communication mechanism enforces

10   execution of a plurality of received messages in the order the plurality of received

11   messages were received;

12   the cluster communication mechanism sending a first ordered message to a first

13   plurality of other computer systems in the cluster; and

14   the cluster communication mechanism sending a second ordered message to a

15   second plurality of other computer systems in the cluster without waiting for a response to

16   the first ordered message from each of the first plurality of other computer systems in the

17   cluster.

1   7. (Previously Presented) The method of claim 6 further comprising the step of at least

2   one of the first plurality of other computer systems in the cluster responding to the first

3   and second ordered messages by sending a single acknowledge message to the cluster

4   communication mechanism that acknowledges both the first and second ordered

5   messages.

1   8. (Original) The method of claim 6 wherein the first and second ordered messages each

2   include a header with information that indicates whether an acknowledge message for the

3   first and second ordered messages may be delayed and grouped with at least one

4   subsequent acknowledge message.

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1   9. (Currently Amended) A program product comprising:

2   (A) a computer program comprising:

3   (A1) a cluster communication mechanism that includes a sliding send

4   window that communicates at least one ordered message to a plurality of other

5   computer systems in a cluster computer system that cooperate via ordered

6   messages to perform a task without waiting for an acknowledgment from any of

7   the plurality of other computer systems before sending out the next ordered

8   message, and wherein the cluster communication mechanism enforces execution

9   of a plurality of received messages in the order the plurality of received messages

10   were received; and

11   (B) computer-readable tangible signal bearing media bearing the computer

12 program.

1   10. (Original) The program product of claim 9 wherein the signal bearing media

2 comprises recordable media.

1   11. (Cancelled)

1   12. (Original) The program product of claim 9 wherein each ordered message includes a

2 header with information that indicates whether an acknowledge message for the ordered

3 messages may be delayed and grouped with at least one subsequent acknowledge

4 message.

1   13. (Previously Presented) The apparatus of claim 1 wherein the cluster communication

2 mechanism communicates the at least one ordered message to the plurality of other

3 computer systems via IP multicast.

1   14. (Cancelled)

1   15. (Previously Presented) The method of claim 6 wherein first plurality of computer

2   systems includes all computer systems in the second plurality of computer systems.

1   16. (Previously Presented) The method of claim 6 wherein the first plurality of computer

2   system comprises the second plurality of computer systems.

1   17. (Previously Presented) The method of claim 6 wherein the cluster communication

2   mechanism communicates the at least one ordered message to the plurality of other

3   computer systems via IP multicast.

1   18. (Cancelled)

1   19. (Previously Presented) The program product of claim 9 wherein the cluster

2   communication mechanism communicates the at least one ordered message to the

3   plurality of other computer systems via IP multicast.

1   20. (Cancelled)

STATUS OF THE CLAIMS

Claims 1-12 were originally filed in this patent application. In response to the first office action dated 03/01/04, an amendment was filed on 06/01/04 that amended claims 1, 4, 6, 7 and 9 and added new claims 13-20. In response to the final office action dated 11/03/04, an RCE and amendment was filed on 01/25/05 that amended claims 1, 4, 6 and 9. In the pending office action, claims 9, 11, 12 and 19 were rejected under 35 U.S.C. §101, and claims 1-20 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,392,993 to Hamilton. No claim was allowed. In this response claims 1, 6 and 9 have been amended and claims 11, 14, 18 and 20 have been cancelled. Claims 1-10, 12, 13, 15-17, and 19 are currently pending.